

# ARMY LIFE

YOUR GUIDE TO  
**THE CORPS  
OF ROYAL  
ENGINEERS**

**INSIDE**

## Meet the combat engineers

Discover your ideal  
role with the Army's  
multi-skilled  
soldiers



**PLUS  
TRAVEL,  
ADVENTURE,  
QUALIFICATIONS  
AND SUCCESS**





**I**n conflict or in peacetime, the Corps of Royal Engineers rises to some of the toughest challenges that military life can present. The men and women of this Corps are among the most highly trained and versatile in the British Army, and there's little they can't do. From clearing a path through a minefield to providing clean water for an African village, the tradesmen and women of the Corps carry out a huge range of tasks. History shows that the ingenuity and adaptability of the Royal Engineers has been pivotal in many conflicts, and has helped thousands of civilians recover from the damage caused by war. Today's Engineers have the same spirit and initiative, making them a crucial part of the Army.

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# TELLING IT LIKE IT IS

For the lowdown on what it's like to be in the Royal Engineers, there's no one better to ask than the people doing the job right now



**"I joined the Engineers for the variety of challenging jobs available" p10**  
 Captain Clare Brooks, 28  
 Engineer Troop Officer (Regular)

**"The equipment used by the Engineers is awesome" p6**  
 Sapper Lee Cooke, 19, Plant Operator Mechanic (Regular)



**"Everybody enjoys the demolition part of the training!" p8**

Corporal Jonathan Crouch, 23  
 Plant Operator Mechanic (Regular)



**"You work hard, but when the job is done, there's plenty of time to relax and hang out with your mates" p20**  
 Sapper Edward Gosse, 23, Geographic Support Technician (Regular)



**"The specialist qualifications I've gained with the Engineers would cost thousands on civvy street" p23**  
 Lance Corporal Justin Dolly, 21, Plasterer/Painter (Regular)



# WORK HARD, PLAY HARDER

Royal Engineers tell us how the Army made their sporting dreams a reality

## CORPORAL BEN HUGHES, 32 COMBAT ENGINEER (REGULAR)

When this Corporal's rugby career hit a wall, the Army gave him a leg-up

At the age of 17, Corporal Ben Hughes had a problem. After several impressive seasons in county rugby, he received a call-up to the England U19 team and was being tipped for international glory.

And the problem with that was? "You try finding an employer who's happy to give you half the week off to practise rugby," explains Ben.

The Engineers were the solution. "The Army takes rugby seriously, and does everything professionally – like giving you time off to prepare for games."

Ben's decision to join paid off. This year, he became Army rugby's most capped player, and led the team to victory in the season finale against the Navy at Twickenham rugby stadium. "We spent three weeks in South Africa preparing for the game," says Ben. "Whatever your standard, the Army offers great opportunities for sport and adventurous training worldwide."



Adam Hankinson is part of the FA Cup-winning Royal Engineers AFC

## SAPPER ADAM HANKINSON, 19, GEOGRAPHIC SUPPORT TECHNICIAN (REGULAR)

Adam now plays football for FA Cup-winning Royal Engineers AFC



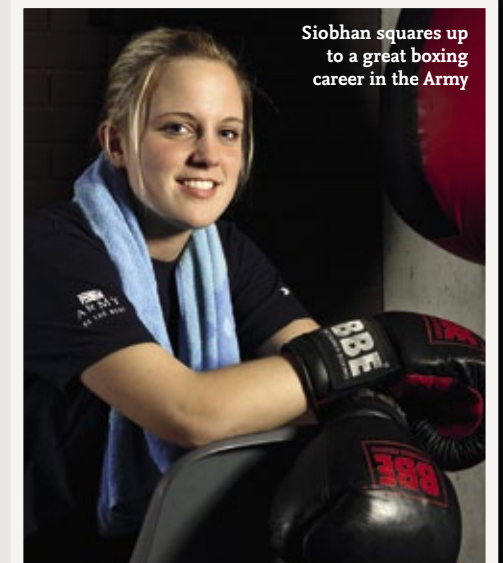
Some soldiers pack their spare time with adventurous training like scuba-diving in Asia or skiing in France. Others, such as footballing genius Adam Hankinson, pursue sporting dreams. Adam plays for Royal Engineers AFC, a football team that actually won the FA Cup back in 1875. "The Army's training facilities are brilliant, and there are loads of teams at all levels," says Adam. "I wasn't sure whether I'd fit in at first, but the banter kicked off within seconds and training sessions became a great laugh."

## SAPPER SIOBHAN WHITMORE, 19, ENGINEER IT SYSTEMS OPERATOR (REGULAR)

Meet the Sapper who's equally at home in the ring as in the field

Whether you want to stride ahead in your career or get the edge over sporting opposition, the key is training. Just ask Sapper Siobhan Whitmore. "I started boxing at my local gym when I was 14," she explains. "My regiment is known for its sporting achievements, and my technique has benefited from some expert coaching since I joined."

Siobhan joined as an Engineer IT Systems Operator. "Attitudes to female boxers on civvy street can be strange. To be honest, I don't think I'd be as competitive as I am now if I hadn't joined the Engineers."



Siobhan squares up to a great boxing career in the Army



**SAPPER LEE COOKE**  
Soldier, Combat Engineer,  
Plant Operator Mechanic

# READY FOR A CHALLENGE

A bridge is down and the Challenger 2 tank squadron must advance before the enemy regroups. There's only one corps to call – the Royal Engineers

## TROJAN

It may look like a piece of farming equipment, but the Trojan is more barnstormer than barnyard. This beefed-up bulldozer can do everything from digging tank traps to shifting burning cars

Salisbury Plain is a long way from Camp Bastion, the Army's main base in Afghanistan. But what is taught here on this wet and windy exercise area in Wiltshire can make or break a mission when these Royal Engineers soldiers are serving on operations. The skills they learn here are many and varied. Royal Engineers need to be as expert at handling an SA80 assault rifle as they are at wielding a spanner.

"We've got to be part soldier, part engineer," says Sapper Lee Cooke. "We work closely with the Infantry," he explains. "If they need to get into an enemy compound, we are there with the explosives to blast a way in for them. We also have to construct fortifications from scratch and then stand guard. And if the unit that we're with becomes caught up in a fire fight, we'll pick up our own weapons and get involved."

Right now, though, Lee and the rest of the team have been tasked with using their demolition skills to destroy a bridge that crosses a fast-flowing river. The Army tries to make all its training as realistic as possible, and today's exercise is based on a situation where the Royal Engineers were ordered to disrupt one of the main supply routes of the enemy. ➤

Join the Royal Engineers  
for a career with more  
bangs for your buck





Working and living with your mates in barracks makes it easy to keep a good work/life balance



## AT EASE

Lance Corporal Edwina Koff travelled from South Africa to join the British Army. Now she's enjoying life in barracks at Tidworth with her regiment

“One of the best things about being in the Army is the interaction with all the different people in the unit. That becomes really important when you're on operations because you're living and working closely together. You soon get to know their strengths and their weaknesses, you understand their mood swings, and you look out for each other as well. And that carries on when you're back in the UK.

The accommodation here is really good. We each have our own room and our own bathroom. It makes life a bit easier and it means that you can have some time by yourself to chill out at the end of the day. If you want someone to talk to, there are communal areas where people spend time, or you can just knock on someone's door.

I play football and cricket for the Army. That gives me something to focus on outside work. At the weekends, I like to go to London and see my friends. It's good to get away every now and again, and have a change of scenery.”

► Lee's job on this exercise is to stand guard in the Spartan command vehicle parked nearby while his boss, Corporal Jonathan Crouch, helps to set the explosive charges that are powerful enough to turn the bridge into several tonnes of scrap metal. If this was a real operation, there would be an

ever-present danger of ambush, so Lee's eyes and ears are the team's first line of defence, backed by the powerful machine gun fixed to the Spartan.

This may only be an exercise, but all the same, Jonathan works quickly. “Doing jobs like this is a massive adrenaline rush,” he says. “You're working as part of a small team, and once you're given a task, it's up to you to decide how you complete it. You



Master blaster: Cpl Crouch prepares to blow the bridge



The bridge-laying Titan in action

soon become a really close unit, and your skills make a massive difference to the combat units you're working with.”

With the charges set, it's time to get clear. The engine of Lee's Spartan vehicle roars into life, and the rest of the team head for the Trojan, which will take the engineers safely back to their base. But tough-terrain taxi is only one of its many talents. With its bulldozer-style scoop and a crane, all attached to the armoured body of a tank, this fearsome bit of kit is perfect for engineers who work in the front line. The Trojan weighs over 62 tonnes and is powered by an awesome 1200bhp engine. Once the plough at the front is lowered, there is little that can stand in the way of its progress. Even if the Trojan meets a river that is too big to cross, the giant crane arm just grabs bundles of pipes called ‘fascines’ from the armoured rear decking to plug the gap.



“Once that plough is lowered there is little that can stop the progress of the mighty Trojan”

For Jonathan and Lee, this is the end of the exercise. The explosive charges are dummies filled with castor oil, so there's going to be no big bang, and the main objective now is not to get back home through hostile territory, but to get cleaned up, unwind in the café and maybe catch up with a few emails from friends and family. But if they'd been doing this for real, the working day might only just have begun.

“As well as the soldiering and military skills, everyone has a trade,” Jonathan says. “Whatever skills you'd find on a civilian building site, like bricklaying, painting or carpentry, you'll also find them in the Royal Engineers. You might not always use them on operations but they can be very useful.

“On our last tour of Afghanistan we took over an abandoned school from insurgents. The enemy was only metres away, but in a matter of weeks we built defensive positions to secure it from attack,

and once we'd done that we could get on with providing clean water, showers and cooking areas. That might not sound like a high priority, but when you can cook, wash and sleep in better conditions, it has a big impact on soldiers' morale.”

The good news for the Royal Engineers is that their mix of skills and experience makes it easy to find work in civilian life if they decide to leave the Army. Lee and Jonathan are both Plant Operator Mechanics, trained to use heavy earth-moving kit. As the training also gives them a range of driving licences, they're among the Army's most employable soldiers, but neither is in a hurry to return to civilian life just yet.

“The motto of the Royal Engineers is ‘Ubique’ which means ‘everywhere,’” Lee says, “and that's definitely true. We serve all over the world, and all over the battlefield. It means that there's always loads on offer, from new skills to new experiences.”

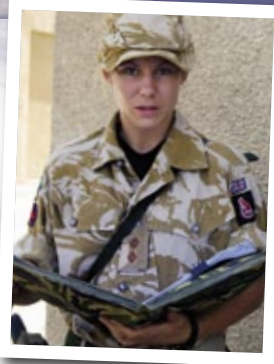
## DID YOU KNOW...

- The Royal Engineers can claim direct descent from the military engineers that were brought to England from France by William the Conqueror for the Battle of Hastings in 1066
- The Royal Albert Hall was designed by an officer of the Royal Engineers
- The Royal Engineers football team competed for the very first FA Cup back in 1872, and even won it in 1875 by beating the Old Etonians 2-0 in the final
- The Royal Engineers pioneered a very early form of radio messaging in 1854 – an early version of today's email





# BUILDING FOR BATTLE



**Captain Clare Brooks explains how the Royal Engineers use their specialist skills when serving on operations**

“ By the time you go on operations you’ll have completed Phase 1 and Phase 2 training, as well as several weeks of pre-deployment training to prepare you for the mission.

This illustration shows how the three key roles of the Royal Engineers help other units to live, move and fight on operations.

Trade skills such as surveying, concreting, plumbing and carpentry are essential when building a base for soldiers to live in. With clean water and a secure place to sleep, they’ll be in much better shape when it’s time to fight.

It’s just as important that soldiers can move quickly and easily around the area that they’re operating in. Sappers use their expert combat engineering skills to build bridges, repair roads and overcome obstacles so the Army can move rapidly around the battlefield.

Most combat units rely heavily on the Royal Engineers’ skills to help them. Clearing an area of booby-traps and mines or blasting entry-holes through building walls are vital combat roles. On top of this, Sappers often get to use their infantry skills when carrying out engineering tasks on the battlefield.”

## LIVE

The most basic thing that units need is a place to live. Survey Engineers choose a good location, and then the other trades move in to get things set up. The foundations are dug by Plant Operator Mechanics, and then the Bricklayers move in to start on the building. Another unit has drilled down to a water source which will give the base its water supply. While this building is being finished off, engineers are using similar skills to build a runway nearby.



**SURVEY ENGINEERS CHECK THE SITE SO WORK CAN START**



**SPECIALISTS LOCATE A WATER SUPPLY**



**PLANT OPERATOR MECHANICS HELP TO SECURE THE BASE**



**ARTISAN TRADES GET TO WORK ON THE BUILDING**



**AIR SUPPORT TEAMS BUILD A HELIPAD**



**LOGISTIC SUPPORT BRIDGE BUILT BY COMBAT ENGINEERS**



**SEARCH TEAMS CLEAR A PATH FOR A CONVOY**



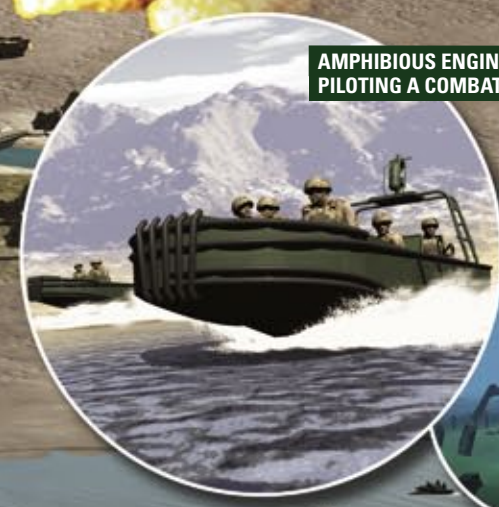
**PATROL BASE BUILT BY COMBAT ENGINEERS**



**SEARCH TEAMS CHECK FOR BOMBS**



**COMBAT ENGINEERS BLAST INTO A COMPOUND**



**AMPHIBIOUS ENGINEERS PILOTING A COMBAT SUPPORT BOAT**



**DIVERS SURVEY THE RIVER BED**

## FIGHT

The job of the Royal Engineers is to support other units, no matter where they are. On operations, one of the most important ways of doing that is to build secure bases. You’ll make sentry posts and other defences to keep soldiers safe from enemy attacks. Specialist search teams will check that existing buildings are free of explosives and booby traps. Other units will use their own explosive skills to blast a way into buildings and compounds for Infantry units.



**COMBAT ENGINEERS PARACHUTE INTO ACTION**



**UNEXPLODED BOMB DEFUSED BY A BOMB DISPOSAL TEAM**

**A NEW BRIDGE IS LAID BY ARMoured ENGINEERS**

## MOVE

On operations, you work closely with other units. When they need to move, it’s your job to help them. If there’s a river to cross, you’ll build a bridge, perhaps by using the Titan bridge-laying tank. If the gap is too big to bridge, you’ll use fast assault boats to land troops and kit on the shore. And where there’s a minefield the rocket-based mine-clearance system Python will make a safe path.



# THE ROLES

Find out where you could fit into the Royal Engineers, the Army's specialist builders, movers and enablers

**T**he Corps of Royal Engineers is home to 39 trades and specialist roles, all with the same purpose – to help the units that they work with live, move and fight on the battlefield.

If a unit needs a place to live, the Engineers will use their construction skills to build a base from scratch or repair an existing building. When the time comes for its Infantrymen to go into action, the Engineers accompany them, clearing a path and building bridges as needed. And they can help with the fighting effort, by making fortifications, or by using explosives to blast through enemy defences.

Whichever role you choose, you'll get three sets of skills. You'll be a soldier and a military engineer, but you'll also receive training in one of a number of engineering trades. So whether you want to be an electrician or a surveyor, you'll find out here what's involved.

## GET TRAINING AND SKILLS...

### PHASE 1 TRAINING

The aim is to give you basic soldiering skills. From learning how to handle and fire a weapon, to how to shine your boots and look after your kit, Phase 1 teaches you everything you need to know. You'll be with other new recruits, and you'll soon become part of a close team, helping and supporting each other. By the end of Phase 1, you're a fit, fully trained soldier with loads of new mates.



### PHASE 2A TRAINING – COMBAT ENGINEER

Now that you've mastered the basics, it's on to the engineering training. First, you'll learn about combat engineering. This is the name given to the set of skills that you use on operations. You'll find out how to keep units on the move by building bridges and clearing minefields, as well as how to slow an enemy advance by putting obstacles in their path. You'll also learn how to prepare, place and detonate explosive charges.



### PHASE 2B TRAINING

For the last phase of your training, you learn specialist skills in your chosen trade. The training is delivered by civilian experts as well as experienced soldiers, so you'll get the best of both worlds. It combines theory and practice, so you'll get hands-on experience as well as trade qualifications that are recognised by civilian employers. Now it's time to join your unit and use your new skills.



**“The training is second to none. I now have a great trade behind me”**

Lance Corporal Marc Bloomfield, 22  
Combat Engineer and Driver (Regular)

### KEY TO SYMBOLS



DRIVING



IT



MANUAL



MECHANICAL



TECHNICAL



TERRITORIAL



TRAVEL

## TECHNICIAN TRADES

### AIR CONDITIONING FITTER



**The Role** As an Air Conditioning Fitter, the installation and maintenance of in-service and civilian static refrigeration, ventilation and air conditioning equipment is your responsibility. You are likely to work on existing systems or construct and commission new ones, in either permanent or temporary facilities.

**The Skills** The Air Conditioning Fitter is trained to install, maintain and operate both military and civilian refrigeration and air conditioning equipment. You will be trained in all aspects of refrigeration theory, in the construction of cold stores and the workings of air conditioning units. This will involve dealing with combinations of electrical installation work, the brazing of pipes and understanding certain gases. You will gain a Category B driving licence.

### ELECTRICIAN



**The Role** Electricians are mainly concerned with electrical installation work, power generation and distribution. The Army utilises existing facilities in the field, as well as constructing modern bases. You are likely to find yourself working either on established electrical installations or constructing and commissioning new ones. The training covers electrical technologies, electrical regulations with practical workshop skills, power generation, distribution and utilisation. It also covers the installation and maintenance of a huge variety of wiring systems.

**The Skills** Your specialist training will teach you how to install and maintain wiring systems in camps and bases, and will give you the skills needed to operate power generation and distribution systems. You will also gain a Category B driving licence.

### GENERAL FITTER



**The Role** As an General Fitter, your job will involve servicing, maintaining and repairing some of the Army's huge range of mechanical equipment. You will become ►



## PHASE 1 TRAINING



You'll pick up loads of new skills – and friends – during Phase 1 training

## SOLDIERING SKILLS

With the opportunity to get practical experience and qualifications, a trade in the Corps of Royal Engineers will give you skills for life

You've decided to join the Royal Engineers, you've chosen your trade and now your journey starts here. Everyone in the Army is a soldier first and a specialist second, so the first thing to do is get the skills you need. And that's what Phase 1 training is all about.

It lasts for 14 weeks and takes place at an Army Training Regiment. You'll live in a single-sex room with three or four other recruits. Your meals are provided as well as your uniform and some other essential items of kit. All you need to bring is your enthusiasm.

You start by learning how to look after and store your kit. Then you start learning some of the military skills like how to live and work in the open, and how to handle and fire a weapon.

Fitness is a key part of the course as well. But don't worry – you don't have to be super-fit before you start. The fitness training builds up slowly, and by the time you've completed Phase 1, you'll be a fit, fully trained soldier, ready to start your combat engineering training.



► well versed in all engineer workshop practices and will gain a working knowledge of petrol and diesel engines, generators, pumps and vehicle/plant transmission systems. In short, there's very little a General Fitter won't be able to do after training, and your skills will be vital for a vast range of military engineering projects.

**The Skills** As a General Fitter, you will learn to maintain, repair and service a wide variety of equipment and vehicles used by the military. You will also learn about engineer drawings and health and safety regulations. You will gain Category B, C and E driving licences.

### PLANT OPERATOR MECHANIC



**The Role** As a Plant Operator Mechanic you will be in charge of operating a range of earth-moving and construction or plant vehicles. The Royal Engineers use a wide variety of both civilian and specialised military equipment. Your job is to put them to good use and keep them in good working order, always maintaining the highest standards to support the Army on its operations worldwide.

**The Skills** Your specialist training will teach you to operate and maintain earth-moving and construction vehicles, some of which may be armoured. You will also be taught basic surveying and how to set out earthworks, and will gain Category B, C and E driving licences.



**“Doing your job in the Engineers gives you a huge amount of experience and self-confidence”**

**Sapper Arron Dyer, 18  
Bricklayer (Regular)**



Constructing a protective wall around a Forward Operating Base in Afghanistan

### PLUMBER



**The Role** As a Plumber in the Army you will be responsible for the assembly, installation, maintenance and repair of military heating and plumbing systems at home and abroad. You could be fixing and improving existing installations or constructing completely new ones from scratch in the field.

**The Skills** Plumbers are mainly concerned with the provision of hot and cold water management to military installations. The initial training covers the whole spectrum of the plumbing world ranging from basic drainage and sanitation to the installation and testing of pressurised hot water heating systems. Subsequent courses will then specialise in the safe use of both natural and liquid petroleum gas appliances and the associated pipework.

## MOVING ON UP

**Moving up the ranks offers increased responsibility plus a pay increase and, with opportunities for further training, you will also pick up extra qualifications**

### SAPPER

All Royal Engineers soldiers begin their career at this rank. During your time as a Sapper, you will have the opportunity to pick up qualifications recognised in civilian life such as BTECs, City & Guilds, Apprenticeships and NVQs.

### LANCE CORPORAL

You could pick up your first stripe after three or four years. Your pay goes up, you will learn management and leadership skills and gain additional qualifications.

### CORPORAL

After a further three or four years, you could get another promotion and a further pay rise. As you can expect to be in charge of a section of eight soldiers, you might also gain leadership qualifications. After another three years of service, there will be opportunities for you to progress to the rank of Sergeant. As a Sergeant, you will take on a more managerial role and have the opportunity to enhance the qualifications gained as a Sapper or Lance Corporal.



## ARTISAN TRADES

### BRICKLAYER



**The Role** The Bricklayer uses traditional and modern bricklaying and concreting skills to construct foundations, floor slabs, solid and cavity walls for general building work and high-density blockwork for reinforced structures. In addition, you will learn to establish site boundaries and set out buildings from plans.

**The Skills** The Bricklayer has an essential role in the construction and repair of bridges and aircraft runways. Your skills will be put to use in restoring damaged and dangerous buildings to a safer condition, building structures from the ground upwards, repairing bomb-damaged walls and constructing specialist reinforced building works in support of key military operations. You will also be taught how to safely erect scaffolding and the staged platforms that it holds.

### PLASTERER/PAINTER



**The Role** As a Plasterer/Painter, the preparation and finishing of various ►



## JOB NOTES

**Name:** Lance Corporal Zoe Dixon, 29  
**Job:** Physical Training Instructor (Territorial)

“I have my own personal training company, and all the courses I have done with the Army translate directly into my civilian career. The thing that I enjoy most about being a part of the Army is the mental challenge. Each exercise that I have taken part in has pushed me further, and I’ve found that I’ve become far more confident. This strength means that, even if I’m not the kind of Physical Training Instructor the soldiers and officers are used to, I don’t have a problem commanding their respect.”



► surfaces is your responsibility. With your various skill sets, you will be required to complete a newly constructed building or renovate an existing facility. This could include the construction of stud walls, in addition to plastering, painting and even tiling. Either way, you add the finishing touches to a construction project and, as such, your skills will be in high demand. **The Skills** You will be responsible for the repair or installation of internal building finishes, from initial preparation to the application of surface and protective finishes including plastering, tiling and painting to walls, floors, ceilings and structural steel. You will also be taught how to use rapid spray painting equipment, repair and install glazing, erect metal stud partitions and line them with plasterboard, carry out rapid sign-making with computer-assisted software and construct steel tubular and aluminium scaffolding. You’ll gain theoretical skills regarding finishing and health and safety training.

### CARPENTER AND JOINER



**The Role** The Royal Engineers Carpenter and Joiner deals with many aspects of construction, including the planning,

setting out and building of structures using timber and fittings. The Army utilises existing facilities, as well as building modern bases in the field wherever it operates, so as a Carpenter and Joiner you will be working to upgrade existing buildings for military use, as well as constructing new ones fit for purpose. **The Skills** As a Carpenter and Joiner you will be involved in the manufacture of timber products using woodworking machinery including hand and power tools. You’ll also install doors, stairs, windows and suspended timber floors for both permanent and temporary buildings. On the construction site you will work alongside other tradesmen to erect scaffolding so that you can build partitions and roof trusses. On top of all this you’ll get great experience in project management and working with technical drawings.

### FABRICATOR



**The Role** As a Fabricator you will be involved in the construction and repair of metal-based objects and parts for both military equipment and civil construction. Your skills as a welder will be invaluable in the improvement and development of modern bases. You’ll also support the Army’s engineering projects at home and on operations overseas.

**The Skills** You will learn how to work with hand and power tools, basic construction techniques and how to use and service military engineering equipment. You will be taught the workshop skills to handle metal, including how to carry out basic cutting and welding. You will also learn how to forge and join steel components using welding tools.

### DESIGN TRADES

#### BUILDING MATERIALS TECHNICIAN



**The Role** As a Building Materials Technician you will be in charge of the investigation and testing of materials used in construction tasks to provide critical design information. In addition, you will be involved in construction design, conducting site investigations using specialist drilling rigs and carrying out laboratory testing on soils, aggregate, concrete and bituminous materials. **The Skills** As a Building Materials Technician you will carry out a wide range of tasks and projects, principally working with concrete technology, bituminous materials, pollution surveys and geophysical investigations. You will provide critical design information during construction tasks. All Technicians gain a Category B, C and E driving licence. ►

## WHAT I DO

**Name:** Captain Richard Scott, 25  
**Job:** Engineer Troop Officer (Regular)

### Why did you become an officer in the Royal Engineers?

The Sappers are home to soldiers with a huge range of different skills. As an officer, that means you have a range of ways to support other units and get the job done. It’s an extremely rewarding role.

### What has been your greatest challenge so far?

Completing the parachute selection course. It’s physically and mentally demanding, and you ache at the end of each day, but it’s well worth it. The airborne engineer units are a really close team, and it’s great to feel that you’re a part of that.

## OFFICER ROLE

### Leadership challenges for the technically minded

#### ENGINEER TROOP OFFICER

In your first appointment as a Royal Engineers officer, you will take command of up to 40 highly skilled men and women, as well as considerable resources and equipment. You will learn how to get the best from your soldiers, use their skills and ensure they always work as a team. It will be your job to assess the task, devise a solution, then direct your soldiers in achieving the objective.

When not deployed on exercises or operations, your role will be to nurture and manage the careers of the soldiers under your command, ensuring that every individual completes the courses required for their role, their career and their personal development. This is vital, as the whole troop must be capable of doing its job

anywhere in the world, often in hostile environments such as Afghanistan.

Whether Regular or Territorial, an engineering degree is not essential as graduates are accepted from any degree discipline. However, those who do have a degree in engineering can gain Chartered status by completing Professional Engineer Training (PET) once in service. For non-graduate officers, there may be the opportunity to study for an in-service degree at a selection of universities.

The role of an Engineer Troop Officer is a challenging one, with a lot of responsibility given very early in your career. But with that comes a huge amount of variety and reward, which very few civilian jobs come close to matching.

## PHASE 2A TRAINING

## COMBAT ENGINEERING TRAINING

After you’ve completed your soldier training, you go to the Royal School of Military Engineering at Minley in Surrey to learn combat engineering.

This includes a wide range of skills that the Royal Engineers use when they deploy on operations. Skills like how to build a bridge or clear a minefield are used when the Army is on the attack, but you’ll also be trained to slow enemy forces down by putting obstacles in their way, or by using explosive charges to destroy bridges they need to cross.

The explosives training also teaches you how to blast holes in the walls of enemy compounds, opening up alternative entrances for attacking Infantry units.

Some of the skills you learn in Phase 2A will help you make life easier for the units that you

work with. You’ll find out how to build airfields to keep them supplied, bases for them to live in and how to provide a supply of clean running water.

With Phase 2A training over, it’s time to move on and learn your trade skills.





## PHASE 2B TRAINING

As a Building Materials Technician you'll be an expert in testing and standards



## LEARNING A TRADE

With the opportunity to gain plenty of practical experience and extra qualifications, a trade in the Engineers will help you get skills for life

Phase 2B can last for a few weeks or just under a year, depending on the trade you've chosen and how much there is to learn.

But whether you spend 17 weeks training as a Plant Operator Mechanic or 40 weeks training as a Geographic Support Technician, you'll learn from military and civilian trainers who are experts in their subjects. The Army has modern training facilities with some of the latest tools and equipment. And in contrast with many

civilian work-based training schemes, in the Royal Engineers you learn by doing, right from the start. You gain plenty of practical experience and recognised trade qualifications, so that when you complete your training, you have the skills and know-how to get to work straightaway.

Completing Phase 2B doesn't mark the end of your training. You can keep learning during your Army career and can do specialist training in jobs like Diver or Bomb Disposal Specialist.

### DESIGN DRAUGHTSMAN



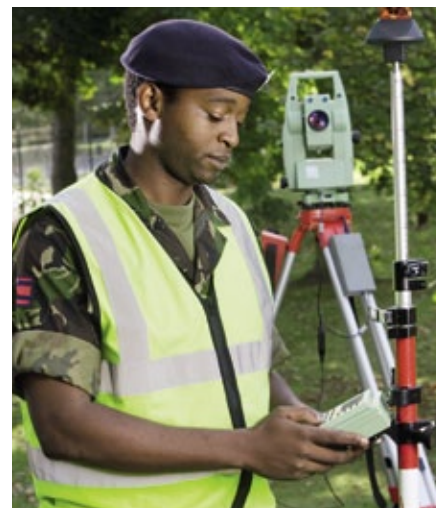
**The Role** Design Draughtsmen take design information and use it to produce engineering drawings to facilitate all kinds of Army construction projects. You will find yourself producing either drawings of existing facilities or plans for new ones, including buildings, bridges, roads and temporary airports. You may even be assisting design work.

**The Skills** The Design Draughtsman is involved with the design and drawing of blueprints for buildings and engineering structures, showing component assembly and location information. You prepare and maintain production drawings and are capable of designing and drawing buildings up to three storeys high in accordance with current regulations. You also learn about the theory of structures, and how to produce structural analysis. Your skills will range from consulting on Army construction projects all over the world, to the basic use of hand and power tools. All Design Draughtsmen will gain a Category B driving licence during training.

### ELEC & MECH DRAUGHTSMAN

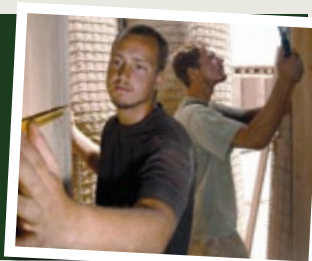


**The Role** Your duty as an Elec & Mech Draughtsman will be producing and maintaining electrical and mechanical engineering drawings for building projects.



**"Joining the Army gave me a way of using my skills and qualifications in a more hands-on way"**

**Lance Corporal Godfrey Manduwi, 28**  
Survey Engineer (Regular)



### TRADE QUALIFICATIONS & APPRENTICESHIPS

The national Apprenticeship scheme gives you the chance to work and earn while studying for a qualification. The Army has the UK's largest programme with over 5000 soldiers completing Apprenticeships each year. You automatically qualify for an Apprenticeship through your trade training, which combines on-the-job learning with study for NVQs and SVQs up to Level 4.

## JOB NOTES

**Name:** Sapper Farai Murahwa, 24

**Job:** Plumber (Regular)

**"** We supply water and heating, which makes other people's lives more comfortable and can really make a difference to morale. My role in the Army also furnishes me with a lifelong career. If and when I leave the organisation, I will automatically have a trade **"**

You are likely to find yourself either producing electrical and mechanical drawings of existing facilities or creating plans for new ones, and even sometimes assisting in design work.

**The Skills** It's up to the Army's Elec & Mech Draughtsmen to produce drawings for a wide variety of engineering tasks, including all electrical and mechanical installations and building services. You will also produce the final drawings and assist in both the design of new builds and the restoration of essential services facilities, including the drawing of detailed electrical and mechanical components and assemblies. You will gain a Category B driving licence.

### GEOGRAPHIC SUPPORT TECHNICIAN



**The Role** Working as part of a Geographic Support Group, Geographic Support Technicians are responsible for compiling, preparing and managing geographic data from a variety of sources, and conducting terrain analysis. You are likely to find yourself in a wide variety of environments using cutting-edge IT equipment and geographic information systems.

**The Skills** Your specialist training will teach you how to use high-end IT equipment and software to carry out three-dimensional spatial analysis of the battlefield. You will also learn to collect and compile geographic data from measurements taken in the field, from satellite imagery, and from aerial photography, using highly specialised instruments and software. You will use Geographic Information Systems (GIS) and other databases to manage operational geographic databases, as well as gain Category B, C and E driver's licences. ➤

## TRAINING & QUALIFICATIONS

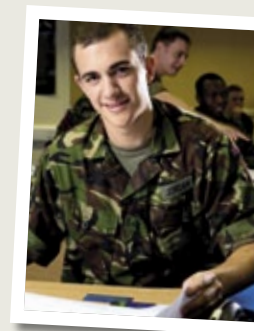
The Royal Engineers pride themselves on continual professional development, and you will attend courses and gain qualifications throughout your career

### SOLDIER

On top of your basic Infantry soldier and Combat Engineer training, you will receive trade training, which can lead to qualifications recognised throughout the civilian world. NVQs and SVQs can be gained up to Level 4, while City & Guilds, Apprenticeships, HND and Science Foundation Degrees can also be studied for. Qualified soldiers can also apply for Associate membership of the relevant professional body.

Later in your career, you can work towards gaining senior qualifications such as the National Diploma in Building Studies and Certificate in Site Safety Management.

At the top of the tree for Royal Engineer soldier roles is Clerk of Works, a design supervisory and technician's role.



### OFFICER

As your career progresses you can study for further qualifications, and potentially achieve Chartered Engineer status. The two-year Professional Engineer Training course in Civil, Mechanical or Electrical Engineering features an industrial placement in the UK or abroad, and enables officers with an engineering degree to gain Chartered status.

You can also specialise as a Geographic Specialist, producing overlays and maps for the Army, Navy and Air Force. This training leads to an MSc in Defence Geographic Information.

Specialist training is also available for those British Army officers who wish to take up posts with bomb disposal or amphibious squadrons, as well as those wishing to command in the Parachute or Commando regiments.





Sapper Edward Gosse (right) enjoys a well-earned drink after work

## JOB NOTES

**Name:** Sapper Edward Gosse, 23  
**Job:** Geographic Support Technician (Regular)

“ I gather data on terrains and produce maps and briefs for commanders to use in the field. With high-end IT systems, it's complicated stuff, but the training has been really good. I want to take things as far as I can and make Staff Sergeant or Warrant Officer. ”

### ► SURVEY ENGINEER



**The Role** The job involves the collection of survey data, advising on it, assisting in design work, and controlling line and level on building projects. Recruits work in varied and challenging environments, collecting and working with survey data.

**The Skills** Your specialist training will teach you how to use modern survey instruments, carry out survey projects, use the latest surveying software, set out for construction works and control line and level. You will also gain a Category B driving licence.

## SPECIALIST TRADES

### ARMoured ENGINEER



**The Role** Armoured Engineers operate and maintain the Challenger 2-based Trojan and Titan vehicles. You will drive these vehicles in battlefield conditions on exercises and operations, as well as manoeuvring them safely and skilfully when travelling on public roads.

**The Skills** Your specialist training will teach you how to drive large armoured vehicles, and gain Category B and H driving licences. You will learn to use excavation equipment and explosive mine-clearing devices.

### DRIVER



**The Role** Drivers are given the chance to operate a whole range of vehicles, from Land Rovers to specialist bridge-layers and cranes. They support other Military Engineers and the Services, using their LGV training to drive tank bridge transporters, automotive bridge launch equipment, bridging cranes and fuel vehicles.

**The Skills** You will qualify as a Large Goods Vehicles (LGV) driver and learn how to maintain and service the vehicles.

### ENGINEER IT SYSTEMS OPERATOR



**The Role** Engineer IT Systems Operators design and construct voice and data communication networks, allowing contact between battle headquarters, ►

“There's so much more to my role than I first thought. The skills will stay with me for life”

**Sapper Abdul Swalah, 18**  
**Plasterer/Painter (Regular)**



# WHAT I DO

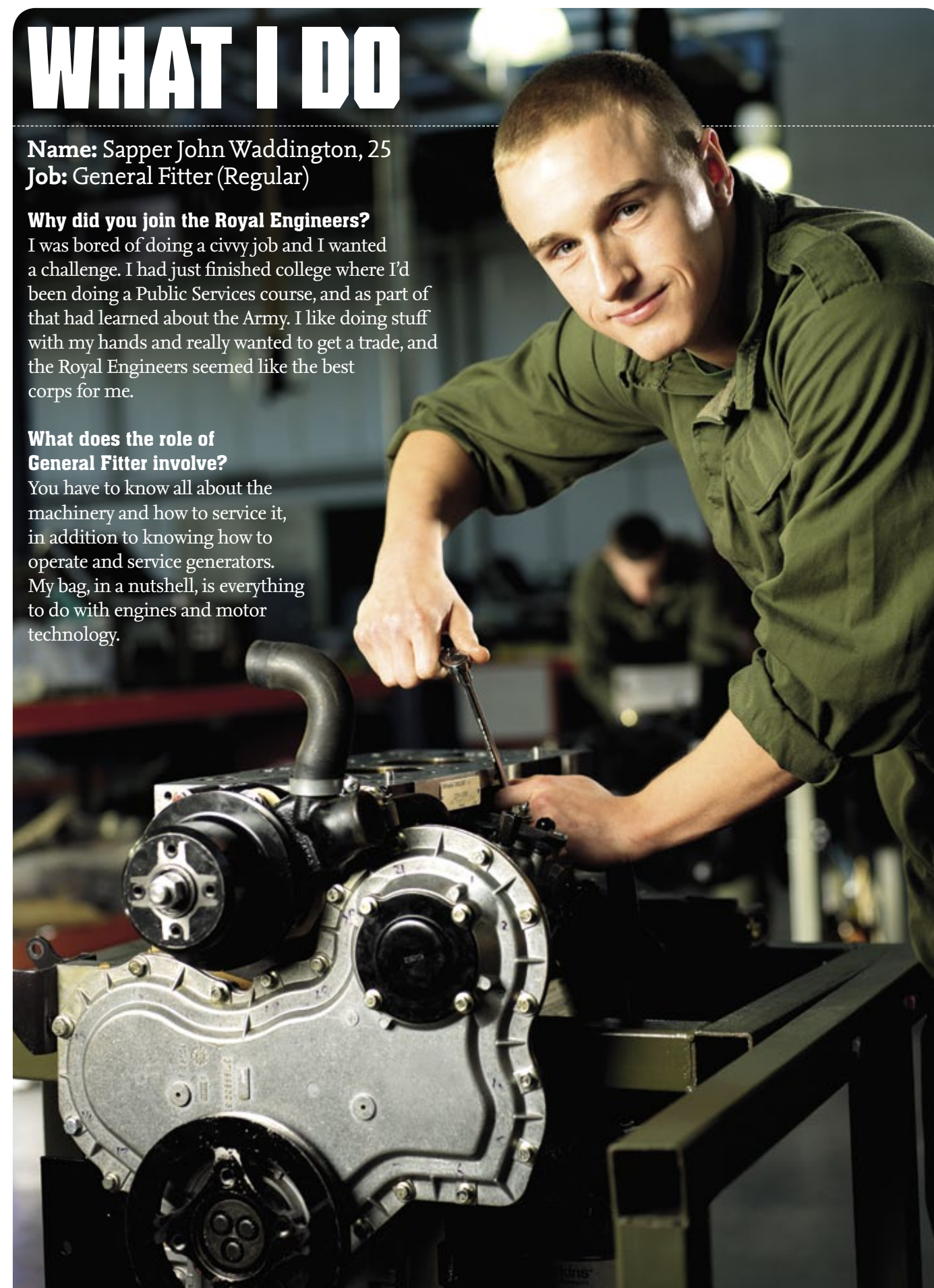
**Name:** Sapper John Waddington, 25  
**Job:** General Fitter (Regular)

### Why did you join the Royal Engineers?

I was bored of doing a civvy job and I wanted a challenge. I had just finished college where I'd been doing a Public Services course, and as part of that had learned about the Army. I like doing stuff with my hands and really wanted to get a trade, and the Royal Engineers seemed like the best corps for me.

### What does the role of General Fitter involve?

You have to know all about the machinery and how to service it, in addition to knowing how to operate and service generators. My bag, in a nutshell, is everything to do with engines and motor technology.





Royal Engineers lay decking during a combat engineer bridging task in Helmand Province, Afghanistan



► commanders and troops in combat. You then learn how to operate and maintain radios, remote antennae and military Computer Information Systems.

**The Skills** Using the latest communication equipment and IT facilities, Engineer IT Systems Operators learn to develop systems to transmit data and voice information and how to control an isolated radio station within a combat environment. You'll also gain Category B, C and E driving licences.

### ENGINEER LOGISTICS SPECIALIST



**The Role** As an Engineer Logistics Specialist you will be responsible for the admin side of obtaining, maintaining and issuing the vast range of kit the Corps requires. Using the latest IT systems, you will ensure everything is in the right place, at the right time.

**The Skills** The IT skills you will master will allow you to purchase, manage and

move every type of engineer resource used by the Army to any part of the world. Working with engineers, you will give advice on available materials, and will gain Category B, C and E driving licences and a forklift driving licence.

### SPECIALIST SKILLS

#### AMPHIBIOUS ENGINEER



**The Role** The Amphibious Engineer provides a vital role in supporting the Army on exercises and operations through the operation of the specialist bridging equipment – the M3 Amphibious vehicle. The M3 can be driven into a river and used as a ferry or linked to make a bridge strong enough to support a Challenger 2 tank. Using this fast and reliable crossing allows commanders on the ground to gain and maintain momentum on the battlefield – elements vital to success in combat.

**The Skills** There are four types of Amphibious Engineer role: Crewman, Driver, Pilot and Commander, each with their own unique set of skills and responsibilities. As a Crewman, you will learn all the basic drills, skills and functions of the M3, while the Driver will gain a Category C driving licence before undertaking extra training allowing them to manage such a large piece

of equipment. The Pilot will master the controls of the vehicle when on the water, and the Commander combines all these skills plus detailed bridge and ferry site reconnaissance, M3 configuration and efficient task planning.

### BOMB DISPOSAL SPECIALIST



**The Role** Bomb Disposal Specialists are experts in the safe disposal of unexploded ordnance, such as mines and shells that may have been left on the battlefield after a conflict as well as terrorist bombs hidden in civilian areas. In peacetime, they apply their expertise to the clearance of mines around the world. Before you can become a Bomb Disposal Specialist, you must first complete soldier or officer training, Combat Engineer training and then trade training (soldiers only). Candidates should then ask to specialise in Bomb Disposal.

### “Commanding a troop has boosted my confidence”

Captain Fraser Deeming, 28  
Engineer Troop Officer (Regular)



**The Skills** Once selected for Bomb Disposal training, you will undertake a two-week course that will teach you to recognise various types of bomb and ammunition, make them safe and then dispose of them. After further promotion, you will complete a four-week intermediate course, which will enhance the skills you have already learned, train you in advanced demolitions and mines, and enable you to carry out the duties of the second-in-command of a Bomb Disposal team.

### COMMANDO ENGINEER



**The Role** Commando Engineers train and fight alongside the Royal Marines, forming part of an elite fighting force uniquely capable of rapidly deploying around the world. They conduct specialist expeditionary operations, with individuals ►

## JOB NOTES

Name: Lance Corporal Elizabeth Wilson, 22  
Job: General Fitter (Regular)

“What I like most is that the job is really hands-on. We don't sit at desks all day, we get out there and fix the vehicles. No matter what the problem is, we're trained to find and repair it, which is why we're always in demand on operations.”



## WHAT I DO



Name: Lance Corporal Justin Dolly, 21  
Job: Plasterer/Painter (Regular)

### Why did you join the Royal Engineers?

Training and benefits are the main reasons I joined the Army. And because qualifications are free, soldiers and officers have opportunities not open to civilians. I have learned to take a step back, think about a situation and remain calm – which is important. On top of this comes adventurous training, which gives me the opportunity to visit some of the world's most beautiful places at massively reduced prices.

### What do you enjoy about being a Lance Corporal?

The best part about life as a Lance Corporal is the way it improves you as a person. The Royal Engineers have helped me become a leader. Training pushes you out of your comfort zone and develops courage – skills just as useful in civilian life as they are on the battlefield.



# WHAT I DO



**Name:** Corporal Sam Grier, 25  
**Specialist qualification:** Diver (Regular)

## Why did you join the Royal Engineers?

It was the fact you could get a valuable trade in a relatively short space of time. I also liked the idea of becoming a diver and the Royal Engineers was the only Corps which offered that option further down the line. Working in a dive team is great. It's different to working in the rest of the Army – a bit more relaxed – but we still get the job done.

## What did your Diver training involve?

The basic dive course lasts five weeks and involves a lot of theory in areas such as the physics of diving, laws of buoyancy and how gases behave under pressure – it's not just blowing bubbles underwater. You get recognised civilian qualifications as well, so I'll have a great career waiting for me should I ever leave the Army.

► being trained in water-borne assaults and cliff-climbing, as well as desert, arctic and jungle warfare. The Commando Engineer has always been at the forefront of operations, providing key support. In addition, they are often deployed on humanitarian and disaster-relief missions, such as earthquake recovery.

**The Skills** Commando Engineers are trained to operate in any environment, so you will learn the skills involved in the full spectrum of conflict. Individuals who volunteer for Commando training will need to pass the eight-week All Arms Commando Course, after receiving coaching and appropriate training. Once passed, the Commando-trained soldier or officer has the right to wear the Green Beret, which recognises those who have completed the demanding tests of endurance while displaying the spirit of teamwork, good humour and determination in adversity.

## DIVER



**The Role** Royal Engineers Divers are trained alongside the divers of the Royal Navy. They are expected to carry out underwater tasks such as reconnaissance, demolition, construction, searches, concreting, recovery and the use of hydraulic tools. All this is conducted globally in all kinds of conditions – from zero visibility to combat situations.

**The Skills** The Army Diving course is open to Royal Engineers who have completed all phases of their training and have been posted to an Engineer Regiment that has a dive team. You will be commercially trained

## JOINING AS A TERRITORIAL

**Engineer Territorials can test their skills in a dynamic environment**

If you have experience of civilian engineering and want to use your knowledge in a challenging environment, you can join a specialist unit made up of qualified engineers. Not only will you gain experience in your engineering field, but you will join a close-knit group of like-minded individuals who enjoy travel and adventure – plus a great social life.

The many skills required of the Royal Engineer Territorial units are those found mainly in the engineering and construction industries (National Territorial Army), but basic skills in combat, plant vehicles, signals and driving are also essential (Regional Territorial Army). As a result, there is always a need for men and women to join the Territorials and support the unit based closest to their home, while training in their chosen field.

For more information, call 0845 600 8080 or go to [army.mod.uk/jobs](http://army.mod.uk/jobs)



## JOB NOTES

**Name:** Corporal Lee Stevenson, 29  
**Job:** Parachute Engineer (Regular)

“As a Para-trained Engineer I'm attached to the Infantry, and I support them by taking on any engineering tasks they need doing. The P Company training course was very hard, but it had to be. What I learned has helped me complete operations in Iraq, Afghanistan, Bosnia and Macedonia, and such intensive training equipped me perfectly for combat.”

to exacting standards to carry out your engineering tasks to a depth of 50m and will constantly train throughout your career to learn new skills and techniques in the area of military diving. Army Diver is a specialist qualification and brings with it the benefits of additional pay, and Category B, C and E driving licences.

## PARACHUTE ENGINEER



**The Role** Parachute Engineers train and serve alongside the Air Assault Brigade. They are deployed by air or land, by parachute, helicopter or aircraft to any area of the battlefield where their skills are needed.

**The Skills** All Parachute Engineers must complete the rigorous P Company training. This ultimate Army assessment tests the fitness, stamina and the mental strength of the soldier to the limit, in order to determine whether an individual has the skills and the right attitude to be able to serve with Airborne Forces. If they pass this course they get to wear the famous Maroon Beret. Candidates must also attend the Basic Parachute Course, then, following

eight successful descents, they will be eligible to wear the coveted Wings.

## SEARCH SPECIALIST



**The Role** You will locate supplies of weapons and Improvised Explosive Devices. With the help of bomb disposal teams, you'll help keep friendly forces safe. You will also work with civilian and military

police to gather evidence that will help bring terrorist suspects to trial.

**The Skills** Search work is often slow and painstaking, and can take place in areas where enemy units are present, so you'll need plenty of patience and a cool head. Skills such as what to look for and how to conduct systematic searches of buildings or supply routes are taught as part of your training. This is a highly specialised role, so you can expect to be busy. ■

“I am doing a job that I like to think makes a difference to people's lives – and gives them a safer place to live”

**Sergeant Chris Sills, 32**  
**Search Specialist (Regular)**





# WHAT HAPPENS NOW?

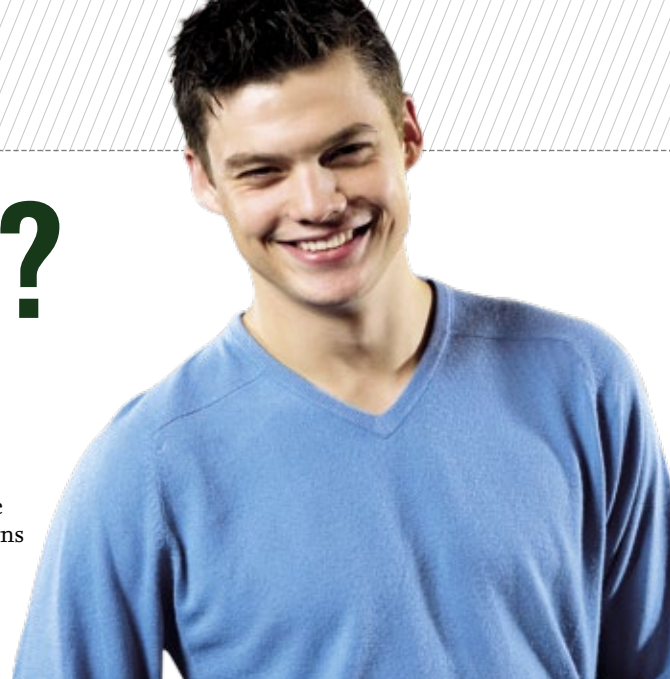
These are the steps you will be taking on the way to a career in the British Army

**W**hether you want to join the British Army as a soldier or officer, full time or in your spare time, you can find out more either online, by phone or face-to-face at an Army Careers Centre. These soldiers and officers have many years of experience in

the Army, will understand your concerns, and are able to answer any questions you or your parents may have.

In the meantime, these are your routes to becoming a serving member of the Army. Remember, once you have made your decision to join, this isn't

a conveyor belt from which there's no escape. If you want to return to your studies and join later, or simply need more time to make a decision, there are opportunities before your training begins to take time out and restart the process at a later date, or to pull out altogether.



**“My ambition?  
I’ve achieved it.  
I’ve joined the Army,  
got a trade and am  
doing a job I love  
with people I like.  
Even better, I’ve  
got skills for life”**

Sapper Tunay Omer, 23  
Bomb Disposal Specialist (Territorial)



## JOIN AS A SOLDIER

### CONSIDER YOUR OPTIONS

**1** Once you decide to join the Army you can register online, by phone or face-to-face at a recruiting event. This lets us check that you meet the Army's entry conditions, such as age, nationality and residency. If you decide to join the Territorials you may wish to visit your local unit, to meet the soldiers and learn more.

### INITIAL TESTS

**2** You will take some basic tests and assessments to see which area of the Army best suits you. This will include an interview, and will take place at your local Army Careers Centre. Your Careers Adviser will then discuss the options available to you. For those wishing to join the Territorials, your interview could take place at your local Territorial Unit.

### FINAL TESTS

**3** Next, you will attend a two-day course at an Assessment Centre, where you will undergo fitness, health and team tests to determine your suitability for an Army career. Depending on your choice of trade you may be required to attend further assessment. If you decide to join the Territorials, it's exactly the same selection process as the Regulars.

### CONGRATULATIONS!

**4** You will now be offered a place on Phase 1 Training – a course designed to give you all the skills a soldier needs. On the first day of training you will formally enlist in the British Army. Phase 2 of your training will be with your chosen Corps or Regiment. This is when you will gain the specific skills to start your job. If you join as a Territorial then you will receive modular training either in separate units, or if you have the time, a single consolidated package.

#### NEED MORE TIME?

If you haven't decided whether to join the Army, or want to return to full-time education with possible financial sponsorship, tell your Candidate Support Manager (recruiter) and they will stay in touch. In the meantime, why not try an Insight Course to experience Army life first-hand?

#### DIDN'T MAKE IT?

If you didn't meet the required standards, there may be an opportunity for you to retake the tests. Your Candidate Support Manager (recruiter) will let you know the areas you need to work on, which means you'll be better prepared next time.



**“As a kid, I never  
thought I'd get the  
opportunity to travel  
and see the world.  
But I'm still only 21,  
and already I've been  
half way round the  
globe with the Corps  
of Royal Engineers”**

Sapper Michael Agyei, 21  
Building Materials Technician (Regular)

## JOIN AS AN OFFICER

### CONSIDER YOUR OPTIONS

**1** Once you decide to join the Army you can register online, by phone or face-to-face at a recruiting event. This lets us check that you meet the Army's entry conditions, such as age, nationality and residency. If you decide to join as a Territorial you may wish to visit your local unit, to meet the officers and learn more.

### INITIAL TESTS

**2** To assess your suitability for a role as a British Army officer you will be required to take some basic tests online. You will also be interviewed by a Senior Careers Adviser, before attending a medical and an Army Officer Selection Board (AOSB) Briefing, which will help prepare you for the AOSB Main Board.

### ARMY OFFICER SELECTION

**3** If you are successful at the AOSB Briefing, you will be put forward to attend the AOSB Main Board. Here you will undertake a series of physical and mental tests over a three-day period to see if you are Army officer material. For some roles you may be required to attend further assessment. As you decide which Corps or Regiment you wish to join you will be offered Officer Familiarisation Visits to find out more. If you decide to join the Territorials, it's exactly the same selection process as the Regulars.

### CONGRATULATIONS!

**4** You have passed the AOSB Main Board and are invited to join the Army for officer training. You will be assigned a place on a Commissioning Course (either the Regular or Professionally Qualified Officer (PQO) course) at Royal Military Academy Sandhurst and will formally enlist in the British Army. Junior officers will then attend a role specific course where they learn the skills required to be an officer. All TA officers will undergo TA training modules prior to attending the TA Commissioning Course at RMAS.

**“Whatever your  
strengths and  
weaknesses, you  
are handed huge  
responsibility early  
on in your career.  
It's very rewarding,  
and not like a regular  
job on civvy street”**

Second Lieutenant Gail Fisher, 20  
Engineer Troop Officer (Regular)



To find out more about the Corps of Royal Engineers talk to a Careers Adviser. You can find your local adviser by visiting [army.mod.uk/contactus](http://army.mod.uk/contactus)

**Call 0845 600 8080**

**Go to [army.mod.uk/jobs](http://army.mod.uk/jobs)**

The information in this brochure is correct at the time of going to press. Please check with a Careers Adviser for latest details.



**"I'VE BEEN  
ABLE TO LEARN  
A TRADE AND  
USE ALL OF  
THOSE SKILLS IN  
MY ARMY JOB"**



The British Army wholeheartedly supports the principle of equality of opportunity in employment. We are opposed to all forms of unlawful discrimination on the grounds of race, colour, ethnic background, gender, marital status, sexual orientation, disability, religious belief or age. We are committed, wherever practicable, to recruiting and maintaining a workforce which broadly reflects the UK population we serve. We have a strict code of conduct that ensures zero tolerance of bullying, harassment, discrimination and victimisation on any grounds

**Call 0845 600 8080**

**Go to [army.mod.uk/jobs](http://army.mod.uk/jobs)**



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